### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants : Peter R. NEUWALD et al. Confirmation No. 5431

Serial No : 10/628,254 Examiner: B. R. Bruckart

Filed : July 29, 2003 Group Art Unit: 2155

For : J2EE ENTERPRISE INFORMATION SYSTEM (EIS) COMMON OBJECT

REQUEST BROKER ARCHITECTURE (CORBA) CONNECTOR

# APPEAL BRIEF UNDER 37 C.F.R. §41.37

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop Appeal Brief - Patents
Randolph Building
401 Dulany Street
Alexandria, VA 22314

### Sir:

This appeal is from the rejection of claims 1-25, as set forth in the Final Office Action of August 29, 2007, and as maintained in the Advisory Action of December 20, 2007.

A Notice of Appeal was filed on December 28, 2007 in response to the Final Office Action of August 29, 2007, and the (two-month) period for filing an Appeal Brief was set to expire on February 28, 2008. The requisite fee for filing an Appeal Brief under 37 C.F.R. §41.20(b)(2) is submitted herewith.

However, if for any reason the necessary fee is not associated with this file or the fee as submitted is inadequate, the Commissioner is authorized to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19-0089.

# (1) REAL PARTY IN INTEREST

The real party in interest is AT&T Knowledge Ventures, L.P., as established by a Change of Name recorded in the U.S. Patent and Trademark Office on February 7, 2008, at Reel 020481 and Frame 0378.

# (2) RELATED APPEALS AND INTERFERENCES

No related appeals and/or interferences are pending.

### (3) STATUS OF THE CLAIMS

Claims 1-25, all of the claims pending in this application, stand finally rejected and are the subject of this appeal. Appellants appeal the final rejection of claims 1-25. A copy of claims 1-25 is attached as an Appendix to this brief.

# (4) STATUS OF THE AMENDMENTS

No amendments to the claims were filed under 37 C.F.R. § 1.116 after the final rejection of the claims of August 29, 2007.

# (5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Initially, Appellants note that the following descriptions are made with respect to the independent claims and include references to particular parts of the specification. As such, the following are merely exemplary and are not a surrender of other aspects of the present invention

that are also enabled by the present specification as well as those that are directed to equivalent structures or methods.

Independent claim 1 recites a method of managing connections between a Java 2 enterprise edition (J2EE) application server and a remote common object request broker architecture (CORBA) enterprise information system, comprising: integrating a resource adapter with the J2EE application server, the resource adapter comprising an encapsulated CORBA interface to the remote CORBA enterprise information system; and establishing a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

In this regard, exemplary embodiments of the present specification are shown in FIGS. 1-4, and disclosed at page 8, line 25 to page 19, line 12. The exemplary embodiments disclose a method of managing connections between a Java 2 enterprise edition (J2EE) application server (450) and a remote (page 11, lines 11-21) common object request broker architecture (CORBA) enterprise information system (190/480), comprising: integrating (S210) a resource adapter (150/460) with the J2EE application server (450), the resource adapter (150/460) comprising an encapsulated CORBA interface (180) to the remote CORBA enterprise information system (190/480); and establishing (S215) a persistent (page 14, lines 8-12) CORBA connection (165) between the J2EE application server (450) and the remote CORBA enterprise information system (190/480).

Independent claim 9 recites a computer readable medium for storing a computer program that manages connections between a Java 2 enterprise edition (J2EE) application server and a

remote common object request broker architecture (CORBA) enterprise information system, the computer readable medium comprising: an integrating code segment that integrates a resource adapter with the J2EE application server, the resource adapter comprising an encapsulated CORBA interface to the remote CORBA enterprise information system, and a persistent CORBA connection establishing code segment that establishes a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

In this regard, exemplary embodiments of the present specification are shown in FIGS. 1-4, and disclosed at page 8, line 25 to page 19, line 12. The exemplary embodiments disclose a computer readable medium for storing a computer program that manages connections between a Java 2 enterprise edition (J2EE) application server (450) and a remote (page 11, lines 11-21) common object request broker architecture (CORBA) enterprise information system (190/480), the computer readable medium comprising: an integrating code segment that integrates (S210) a resource adapter (150/460) with the J2EE application server (450), the resource adapter (150/460) comprising an encapsulated CORBA interface (180) to the remote CORBA enterprise information system (190/480), and a persistent CORBA connection establishing code segment that establishes (S215) a persistent (page 14, lines 8-12) CORBA connection (165) between the J2EE application server (450) and the remote CORBA enterprise information system (190/480).

Independent claim 17 recites a Java 2 enterprise edition (J2EE) compliant application server that hosts a resource adapter for managing connections between the J2EE application server and a remote common object request broker architecture (CORBA) enterprise information system, comprising: a processor that implements a customized deployment descriptor for deploying the

resource adapter, the resource adapter comprising an encapsulated CORBA interface for the remote CORBA enterprise information system, the deployed resource adapter establishing a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

In this regard, exemplary embodiments of the present specification are shown in FIGS. 1-4, and disclosed at page 8, line 25 to page 19, line 12. The exemplary embodiments disclose a Java 2 enterprise edition (J2EE) compliant application server (450) that hosts a resource adapter (150/460) for managing connections between the J2EE application server (450) and a remote (page 11, lines 11-21) common object request broker architecture (CORBA) enterprise information system (190/480), comprising: a processor that implements a customized (page 13, lines 6-21) deployment descriptor (175) for deploying the resource adapter (150/460), the resource adapter (150/460) comprising an encapsulated CORBA interface (180) for the remote CORBA enterprise information system (190/480), the deployed resource adapter (150/460) establishing (S215) a persistent (page 14, lines 8-12) CORBA connection (165) between the J2EE application server (450) and the remote CORBA enterprise information system (190/480).

### (6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- (A) Claims 1, 9 and 17 were rejected under 35 U.S.C. §102(e) over BLACK et al., (U.S. Patent Application Publication No. 2004/0039800).
- (B) Claims 2-8, 10-16 and 18-25 were rejected under 35 U.S.C. §103(a) over BLACK in view of SCHUNK et al. (U.S. Patent No. 6,980,515).

### (7) ARGUMENT

(A) The Decision to Reject Claims 1, 9 and 17 under 35 U.S.C. §102(e) over BLACK Should be Reversed.

In the Final Office Action of August 29, 2007, claims 1, 9 and 17 were rejected under 35 U.S.C. §102(e) over BLACK. The Final Office Action asserts that BLACK discloses the features of claim 1 at Figures 5A-5D and paragraphs [0060]-[0063].

- (A)(I) The Rejection of Claim 1 under 35 U.S.C. §102(e) is Improper
- (A)(I)(a) The Rejection of Claim 1 is Not a Proper Prima Facie Rejection

As best understood from the Final Office Action and the Advisory Action, the rejection of claim 1 is based on assertions that:

- an Instance of Enterprise Java Beans (EJB) 560 in BLACK discloses the J2EE application server of claim 1;
- a CORBA server 540A in BLACK discloses the CORBA enterprise information system of claim 1;
- an interface between the CORBA server 540A and the Instance of Enterprise Java Beans
   (EJB) 560 in BLACK discloses the resource adaptor of claim 1; and
- the Instance of Enterprise Java Beans (EJB) 560 in BLACK discloses the encapsulated
   CORBA interface.

Despite Appellants' requests, the Final Office Action failed to specify which of the features of BLACK were believed to disclose an encapsulated CORBA interface to a CORBA enterprise information system; or a resource adapter comprising the encapsulated CORBA

interface, each of which is recited in claim 1. Rather, these explanations were first set forth in the Advisory Action.

37 C.F.R. 37 CFR 1.104 (c)(2) states:

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

However, the Final Office Action does not clearly explain the asserted pertinence of BLACK as relied on in the rejection, and such explanations were not forthcoming until the Advisory Action. Thus, the Final Office Action fails to set forth a proper rejection of claim 1 over BLACK.

(A)(I)(b) Features of BLACK Applied in Rejecting Claim 1 are Internally Inconsistent

An embodiment shown in Figures 5C/5D in BLACK is alternative to and inconsistent
with an embodiment shown in Figures 5A/5B. This internal inconsistency between the two
embodiments is summarized in the "BRIEF DESCRIPTION OF THE DRAWINGS' in BLACK
at pages 2-3, paragraphs [0020]-[0023], which disclose:

[0020] FIG. 5A is a block diagram showing a client-server environment in which CORBA and Java<sup>TM</sup> are interoperable in the absence of a bridge, in accordance with one embodiment of

the invention.

[0021] FIG. 5B is a block diagram showing an example, of a request being serviced in the client-server environment of FIG. 5A.

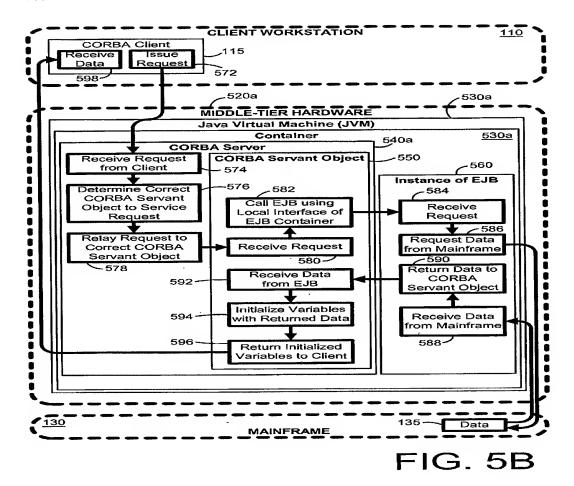
[0022] FIG. 5C is a block diagram showing another embodiment of a client-server environment in which CORBA and Java<sup>TM</sup> are interoperable.

[0023] FIG. 5D is a block diagram showing an example of a request being serviced in the client-server environment of FIG. 5C.

As set forth in MPEP 2131, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Reliance on a combination of alternative and inconsistent features of different embodiments in BLACK in rejecting claim 1 is improper, at least because BLACK cannot show in a "mix" of alternative and inconsistent embodiments the "identical invention" to which claim 1 is directed.

(A)(I)(c) BLACK Does Not Disclose "each and every" Feature Recited in Claim 1

The Final Office Action asserts that BLACK discloses the features of claim 1 at Figures 5A-5D (primarily Figure 5B) and paragraphs [0060]-[0063]. The rejection of claim 1 over BLACK is incorrect and does not reflect proper consideration of the features recited in claim 1 or the teachings of BLACK at Figures 5A-5D and paragraphs [0060]-[0063]. A copy of exemplary Figure 5B of BLACK follows:



In this regard, a CORBA server 540A in Figure 5B in BLACK is a component of a container 530A at a Java Virtual Machine (JVM). The container 530A also includes the Instance of Enterprise Java Beans 560. The Java Virtual Machine is implemented on the Middle-Tier Hardware 520A. As shown in element 582 of Figure 5B in BLACK, a local interface of the Instance of Enterprise Java Beans (EJB) 560 is used by a CORBA Servant Object 550 of the CORBA server 540A to call the Instance of Enterprise Java Beans 560.

An Instance of Enterprise Java Beans (EJB) 560 in BLACK does not disclose a J2EE

application server, as recited in claim 1. Rather, the only server contained in the container 530A in BLACK is the CORBA server 540A.

A local interface between the CORBA server 540A and the Instance of Enterprise Java Beans in BLACK does not disclose the resource adaptor of claim 1. Rather, BLACK does not disclose whether the local interface between the CORBA server 540A and the Instance of Enterprise Java Beans (EJB) 560 used by the CORBA servant object 550 to access the Instance of Enterprise Java Beans (EJB) 560 is independent, integrated with the Instance of Enterprise Java Beans (EJB) 560 or integrated with the CORBA Server 540A. Further, element 582 in Figure 5B of BLACK explicitly discloses that the function "Call EJB using Local Interface of EJB Container" is performed by the CORBA Server 540A and not the Instance of Enterprise Java Beans 560. Moreover, paragraph [0061] of BLACK discloses "upon receiving (580) the request, the CORBA servant object 550 calls (582) the Instance of the EJB 560 using the local interface of the EJB". Accordingly, there is no proper basis for interpreting a local interface in BLACK as a resource adaptor (comprising an encapsulated CORBA interface) integrated with a J2EE application server, as recited in claim 1.

Contrary to the assertion in the Advisory Action, the Instance of Enterprise Java Beans (EJB) 560 in BLACK does not disclose the encapsulated CORBA interface of a resource adaptor, as recited in claim 1. Indeed, the Instance of Enterprise Java Beans (EJB) 560 is not itself an interface, let alone encapsulated within the local interface between the CORBA server 540A and the Instance of Enterprise Java Beans (EJB) 560, as would be required for the above-noted assertion to be consistent with the assertion in the Advisory Action that the local interface

between the CORBA server 540A and the Instance of Enterprise Java Beans (EJB) 560 in BLACK discloses the resource adaptor.

The cited teachings of BLACK also do not disclose that the Instance of Enterprise Java Beans (EJB) 560 is remote from CORBA server 540a. As shown in Figure 5B, CORBA server 540a is provided in the same container 530a as the Instance of Enterprise Java Beans (EJB) 560. Further the container 530a is an element of a single disclosed Middle-Tier Hardware component 520a in Figure 5B. In this regard, cited paragraph [0061] discloses "the CORBA servant object 550 is now locally located within the same container 530a" and "the call (582) to the Instance of the EJB 560 by the CORBA servant... may now be implemented without using remote methods". Accordingly, the cited teachings of BLACK do not disclose that the Instance of Enterprise Java Beans (EJB) 560 is remote from the CORBA server 540a.

The cited teachings of BLACK further do not disclose that a connection between the Instance of Enterprise Java Beans (EJB) 560 and the CORBA server 540a is persistent. Rather, as described at paragraphs [0060] to [0062], the Instance of Enterprise Java Beans (EJB) 560 is called upon receiving a request from a remote CORBA client 115, and the request is serviced based upon the nature of the request. For example, paragraph [0060] of BLACK discloses "if the request is to modify an existing account, than a CORBA servant object for account modification would be the correct CORBA servant object". Accordingly, any connection established between the Instance of Enterprise Java Beans (EJB) 560 and the CORBA server 540a is temporary and established based upon the nature of a particular request from a CORBA client 115. Such a connection would not be interpreted as a persistent connection by one of ordinary skill in the art,

at least insofar as such a connection is not disclosed as persisting after any particular call is terminated. The Advisory Action asserts that the term "persistent" is not defined by Appellants in such a way as to be inconsistent with the interpretation of BLACK in the rejection. However, a persistent CORBA connection is described at page 14, lines 8-12 of the present specification in a manner consistent with an interpretation that would be accorded by one of ordinary skill in the art, and contrary to the teachings of BLACK. Accordingly, the cited teachings of BLACK do not disclose that a connection between the Instance of Enterprise Java Beans (EJB) 560 and the CORBA server 540a is persistent.

As described above, there is no proper interpretation of the features of BLACK as disclosing the combination of features recited in claim 1. Accordingly, claim 1 is allowable under 35 U.S.C. §102 over BLACK.

# (A)(II) The Rejection of Claim 9 under 35 U.S.C. §102(e) is Improper

The Final Office Action cites the same features of BLACK cited with respect to the rejection of claim 1 as disclosing the features of independent claim 9. The Final Office Action is incorrect for at least the reasons set forth above with respect to the similar features of the method recited in claim 1.

That is, none of the cited teachings in BLACK discloses or suggests at least the combination of the computer readable medium in independent claim 9, including

 an integrating code segment that integrates a resource adapter with a J2EE application server

- the resource adapter including an encapsulated CORBA interface to a remote CORBA enterprise information system
- a persistent CORBA connection establishing code segment that establishes a persistent
   CORBA connection between the J2EE application server and the remote CORBA
   enterprise information system

As described above, there is no proper interpretation of the features of BLACK as disclosing the combination of features recited in claim 9. Accordingly, claim 9 is allowable under 35 U.S.C. §102 over BLACK.

# (A)(III) The Rejection of Claim 17 under 35 U.S.C. §102(e) is Improper

The Final Office Action cites the same features of BLACK cited with respect to the rejections of claims 1 and 9 as disclosing the features of independent claim 17. The Final Office Action is incorrect for at least the reasons set forth above with respect to the similar features of the method recited in claim 1 and the computer readable medium recited in claim 9.

That is, none of the cited teachings in BLACK discloses or suggests at least the combination of the Java 2 enterprise edition (J2EE) compliant application server independent claim 17, including:

- a processor that implements a customized deployment descriptor for deploying a resource adapter
- the resource adapter comprising an encapsulated CORBA interface for a remote CORBA enterprise information system

{P23662 00359174.DOC 2}

the deployed resource adapter establishing a persistent CORBA connection between the
 J2EE application server and the remote CORBA enterprise information system

As described above, there is no proper interpretation of the features of BLACK as disclosing the combination of features recited in claim 17. Accordingly, claim 17 is allowable under 35 U.S.C. §102 over BLACK.

**(B)** The Decision to Reject Claims 2-8, 10-16 and 18-25 under 35 U.S.C. §103(a) over BLACK in view of SCHUNK Should be Reversed.

In the Final Office Action of August 29, 2007, claims 2-8, 10-16 and 18-25 were rejected under 35 U.S.C. §103(a) over BLACK in view of SCHUNK.

# (B)(I) The Rejection of Claims 2-8 under 35 U.S.C. §103(a) is Improper

Claims 2-8 are also allowable, at least for the reason that these claims depend from an allowable claim 1, respectively, and because these claims recite additional features that further define the invention recited in claim 1. Further, claims 2-8 are separately patentable over BLACK in view of SCHUNK which fail to render obvious, in Appellants' claimed combination, inter alia,

- (i) the method of managing connections according to claim 1, further comprising:

  receiving a request from an application component implemented by the J2EE application

  server to allocate the persistent CORBA connection and determining whether the persistent CORBA

  connection is available for allocation (claim 2);
  - (ii) the method of managing connections according to claim 2, further comprising:

allocating the persistent CORBA connection to the application component when a persistent CORBA connection is available, and informing the application component that the CORBA connection is unavailable when the persistent CORBA connection is unavailable (claim 3);

- (iii) the method of managing connections according to claim 2, further comprising:
  establishing another persistent CORBA connection between the J2EE application server and
  the CORBA enterprise information system when the persistent CORBA connection is unavailable,
  and allocating the other persistent CORBA connection to the application component (claim 4);
- (iv) the method of managing connections according to claim 1, further comprising:

  receiving a message from the CORBA enterprise information system indicating that the

  persistent CORBA connection is not active and, in response, terminating the persistent CORBA

  connection (claim 5);
- (v) the method of managing connections according to claim 1, further comprising:

  monitoring the persistent CORBA connection to determine whether the persistent CORBA

  connection is active (claim 6);
- (vi) the method of managing connections according to claim 1, further comprising:

  establishing additional CORBA connections between the J2EE application server and the

  CORBA enterprise information system until a predetermined minimum number of CORBA

  connections are established (claim 7); and
  - (vii) the method of managing connections according to claim 7, further comprising:

establishing additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established,

wherein a CORBA connection established after the predetermined minimum number of CORBA connections are established, is established based on a determination, in response to a request from an application component implemented by the J2EE application server to allocate a CORBA connection, that the previously established CORBA connections are unavailable (claim 8).

### (B)(II) The Rejection of Claims 10-16 under 35 U.S.C. \$103(a) is Improper

Claims 10-16 are also allowable, at least because these claims depend from an allowable claim 9, respectively, and because these claims recite additional features that further define the invention recited in claim 9. Further, claims 10-16 are separately patentable over BLACK in view of SCHUNK which fail to render obvious, in Appellants' claimed combination, inter alia,

- (i) the computer readable medium according to claim 9, further comprising:

  a request receiving code segment that receives a request from an application component implemented by the J2EE application server to allocate the persistent CORBA connection; and an availability determining code segment that determines whether the persistent CORBA
- (ii) the computer readable medium according to claim 10, further comprising:

  a CORBA connection allocating code segment that allocates the persistent CORBA connection to the application component when a persistent CORBA connection is available; and

connection is available for allocation (claim 10);

a connection manager informing code segment that informs the application component that the CORBA connection is unavailable when the persistent CORBA connection is unavailable (claim 11);

(iii) the computer readable medium according to claim 10, further comprising:

another persistent CORBA connection establishing code segment that establishes another

persistent CORBA connection between the J2EE application server and the CORBA enterprise

information system when the persistent CORBA connection is unavailable; and

another CORBA connection allocating code segment that allocates the other persistent

CORBA connection to the application component (claim 12);

(iv) the computer readable medium according to claim 9, further comprising:

a message receiving code segment that receives a message from the CORBA enterprise information system indicating that the persistent CORBA connection is not active; and

a persistent CORBA connection terminating code segment that terminates the persistent CORBA connection in response to receiving the message that the persistent CORBA connection is not active (claim 13);

- (v) the computer readable medium according to claim 9, further comprising:

  a monitoring code segment that monitors the persistent CORBA connection to determine whether the persistent CORBA connection is active (claim 14);
  - (vi) the computer readable medium according to claim 9, further comprising:

a minimum CORBA connections establishing code segment that establishes additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined minimum number of CORBA connections are established (claim 15);

(vii) the computer readable medium according to claim 15, further comprising:

a maximum CORBA connections establishing code segment that establishes additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established,

wherein a CORBA connection established after the predetermined minimum number of CORBA connections are established, is established based on a determination, in response to a request from an application component implemented by the J2EE application server to allocate a CORBA connection, that the previously established CORBA connections are unavailable (claim 16).

# (B)(III) The Rejection of Claims 18-25 under 35 U.S.C. §103(a) is Improper

Claims 18-25 are also allowable, at least because these claims depend from an allowable claim 17, respectively, and because these claims recite additional features that further define the invention recited in claim 17. Further, claims 18-25 are separately patentable over BLACK in view of SCHUNK which fail to render obvious, in Appellants' claimed combination, inter alia,

(i) the J2EE application server according to claim 17, further comprising:

a connection manager that processes a request received from an application component implemented by the J2EE application server to allocate the persistent CORBA connection, the J2EE

application server determining whether the persistent CORBA connection is available for allocation in response to receiving the request (claim 18);

- (ii) the J2EE application server according to claim 18, in which the connection manager further allocates the persistent CORBA connection to the application component when the persistent CORBA connection is available, the connection manager determining that the CORBA connection is unavailable when the persistent CORBA connection is unavailable (claim 19);
- (iii) the J2EE application server according to claim 18, in which another persistent CORBA connection is established with the CORBA enterprise information system when the persistent CORBA connection is unavailable, and in which the connection manager further allocates the other persistent CORBA connection to the application component (claim 20);
  - (iv) the J2EE application server according to claim 17, further comprising:

a connection manager that receives a message from the CORBA enterprise information system indicating that the persistent CORBA connection is not active, the connection manager terminating the persistent CORBA connection in response to receiving the message (claim 21);

- (v) the J2EE application server according to claim 17, further comprising:
- a connection manager that monitors the persistent CORBA connection to determine whether the persistent CORBA connection is active (claim 22);
  - (vi) the J2EE application server according to claim 17, further comprising:
- a management module that establishes additional CORBA connections with the CORBA enterprise information system until a predetermined minimum number of CORBA connections are established (claim 23);

- (vii) the J2EE application server according to claim 23, the management module establishing additional CORBA connections with the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established (claim 24); and
  - (viii) the J2EE application server according to claim 24, further comprising:

a connection manager that receives requests from an application component implemented by the J2EE application server to allocate a CORBA connection, the management module establishing CORBA connections after the predetermined minimum number of CORBA connections are established, based on a determination that the previously established CORBA connections are unavailable (claim 25).

### (8) CONCLUSION

As described above, the cited teachings of BLACK do not disclose the combination of features characteristic of the method recited in claim 1, the computer readable medium of claim 9 or the server recited in claim 17. That is, BLACK does not disclose "each and every" feature recited in the pending claims, as would be required for BLACK to be properly applied in a rejection of claims 1, 9 and 17 under 35 U.S.C. §102.

As described above, the cited teachings of BLACK in view of SCHUNK do not render obvious the combination of features characteristic of the methods recited in claims 2-8, the computer readable mediums recited in claims 10-16 or the servers recited in claim 18-25. That is, one of ordinary skill in the art would not have proper reason to modify BLACK with teachings of SCHUNK to obtain the methods of claims 2-8, the computer readable mediums of claims 10-

16 or the servers of claims 18-25, nor would such a combination result in the methods of claims 2-8, the computer readable mediums of claims 10-16 or the systems of claims 18-25.

At least for each of the reasons set forth above, the decisions to reject claims 1, 9 and 17 under 35 U.S.C. §102(3) over BLACK, and claims 2-8, 10-16 and 18-25 over BLACK in view of SCHUNK, are improper, each pending claim of the present application meets the requirements for patentability under 35 U.S.C. §102(e) and 35 U.S.C. §103(a), and the present application and each pending claim thereof is allowable over the prior art of record. Accordingly, reversal of the decision to reject claims 1-25 is respectfully requested.

If there are any questions about this application, any representative of the U.S. Patent and Trademark Office is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted, Peter R. NEUWALD et al.

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### **CLAIMS APPENDIX**

1. A method of managing connections between a Java 2 enterprise edition (J2EE) application server and a remote common object request broker architecture (CORBA) enterprise information system, comprising:

integrating a resource adapter with the J2EE application server, the resource adapter comprising an encapsulated CORBA interface to the remote CORBA enterprise information system; and

establishing a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

- 2. The method of managing connections according to claim 1, further comprising: receiving a request from an application component implemented by the J2EE application server to allocate the persistent CORBA connection and determining whether the persistent CORBA connection is available for allocation.
- 3. The method of managing connections according to claim 2, further comprising: allocating the persistent CORBA connection to the application component when a persistent CORBA connection is available, and informing the application component that the CORBA connection is unavailable when the persistent CORBA connection is unavailable.
  - 4. The method of managing connections according to claim 2, further comprising:

establishing another persistent CORBA connection between the J2EE application server and the CORBA enterprise information system when the persistent CORBA connection is unavailable, and allocating the other persistent CORBA connection to the application component.

- 5. The method of managing connections according to claim 1, further comprising: receiving a message from the CORBA enterprise information system indicating that the persistent CORBA connection is not active and, in response, terminating the persistent CORBA connection.
- 6. The method of managing connections according to claim 1, further comprising: monitoring the persistent CORBA connection to determine whether the persistent CORBA connection is active.
- 7. The method of managing connections according to claim 1, further comprising: establishing additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined minimum number of CORBA connections are established.
  - 8. The method of managing connections according to claim 7, further comprising:

establishing additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established,

wherein a CORBA connection established after the predetermined minimum number of CORBA connections are established, is established based on a determination, in response to a request from an application component implemented by the J2EE application server to allocate a CORBA connection, that the previously established CORBA connections are unavailable.

9. A computer readable medium for storing a computer program that manages connections between a Java 2 enterprise edition (J2EE) application server and a remote common object request broker architecture (CORBA) enterprise information system, the computer readable medium comprising:

an integrating code segment that integrates a resource adapter with the J2EE application server, the resource adapter comprising an encapsulated CORBA interface to the remote CORBA enterprise information system, and

a persistent CORBA connection establishing code segment that establishes a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

10. The computer readable medium according to claim 9, further comprising:

a request receiving code segment that receives a request from an application component implemented by the J2EE application server to allocate the persistent CORBA connection; and an availability determining code segment that determines whether the persistent CORBA connection is available for allocation.

- 11. The computer readable medium according to claim 10, further comprising:
- a CORBA connection allocating code segment that allocates the persistent CORBA connection to the application component when a persistent CORBA connection is available; and a connection manager informing code segment that informs the application component that the CORBA connection is unavailable when the persistent CORBA connection is unavailable.
- 12. The computer readable medium according to claim 10, further comprising:

  another persistent CORBA connection establishing code segment that establishes another
  persistent CORBA connection between the J2EE application server and the CORBA enterprise
  information system when the persistent CORBA connection is unavailable; and
  another CORBA connection allocating code segment that allocates the other persistent
- 13. The computer readable medium according to claim 9, further comprising:

  a message receiving code segment that receives a message from the CORBA enterprise
  information system indicating that the persistent CORBA connection is not active; and

CORBA connection to the application component.

a persistent CORBA connection terminating code segment that terminates the persistent CORBA connection in response to receiving the message that the persistent CORBA connection is not active.

14. The computer readable medium according to claim 9, further comprising:

a monitoring code segment that monitors the persistent CORBA connection to determine whether the persistent CORBA connection is active.

15. The computer readable medium according to claim 9, further comprising:

a minimum CORBA connections establishing code segment that establishes additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined minimum number of CORBA connections are established.

16. The computer readable medium according to claim 15, further comprising:

a maximum CORBA connections establishing code segment that establishes additional CORBA connections between the J2EE application server and the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established,

wherein a CORBA connection established after the predetermined minimum number of CORBA connections are established, is established based on a determination, in response to a request from an application component implemented by the J2EE application server to allocate a CORBA connection, that the previously established CORBA connections are unavailable.

17. A Java 2 enterprise edition (J2EE) compliant application server that hosts a resource adapter for managing connections between the J2EE application server and a remote common object request broker architecture (CORBA) enterprise information system, comprising:

a processor that implements a customized deployment descriptor for deploying the resource adapter, the resource adapter comprising an encapsulated CORBA interface for the remote CORBA enterprise information system, the deployed resource adapter establishing a persistent CORBA connection between the J2EE application server and the remote CORBA enterprise information system.

18. The J2EE application server according to claim 17, further comprising:

a connection manager that processes a request received from an application component implemented by the J2EE application server to allocate the persistent CORBA connection, the J2EE application server determining whether the persistent CORBA connection is available for allocation in response to receiving the request.

19. The J2EE application server according to claim 18, in which the connection manager further allocates the persistent CORBA connection to the application component when the persistent CORBA connection is available, the connection manager determining that the CORBA connection is unavailable when the persistent CORBA connection is unavailable.

- 20. The J2EE application server according to claim 18, in which another persistent CORBA connection is established with the CORBA enterprise information system when the persistent CORBA connection is unavailable, and in which the connection manager further allocates the other persistent CORBA connection to the application component.
  - 21. The J2EE application server according to claim 17, further comprising:

a connection manager that receives a message from the CORBA enterprise information system indicating that the persistent CORBA connection is not active, the connection manager terminating the persistent CORBA connection in response to receiving the message.

- 22. The J2EE application server according to claim 17, further comprising: a connection manager that monitors the persistent CORBA connection to determine whether the persistent CORBA connection is active.
  - 23. The J2EE application server according to claim 17, further comprising:

a management module that establishes additional CORBA connections with the CORBA enterprise information system until a predetermined minimum number of CORBA connections are established.

24. The J2EE application server according to claim 23, the management module establishing additional CORBA connections with the CORBA enterprise information system until a predetermined maximum number of CORBA connections are established.

## 25. The J2EE application server according to claim 24, further comprising:

a connection manager that receives requests from an application component implemented by the J2EE application server to allocate a CORBA connection, the management module establishing CORBA connections after the predetermined minimum number of CORBA connections are established, based on a determination that the previously established CORBA connections are unavailable.

# EVIDENCE APPENDIX

None

# RELATED PROCEEDING APPENDIX

None